**Identifying atoms in a formula**

Complete the chart below. Remember that subscripts outside of a parenthesis get distributed to everything inside the parenthesis and that coefficients get distributed to everything in the formula.

|  |  |  |  |
| --- | --- | --- | --- |
| Compound Name | Formula | Number of Elements | Number of atoms of each element |
| 1. Calcium nitrate | Ca(NO3)2 |  |  |
| 1. Dihydrogen dioxide | 3H2O2 |  |  |
| 1. Tin (II) sulfite | 2SnSO3 |  |  |
| 1. Ammonium oxalate | 3(NH4)2C2O4 |  |  |
| 1. Pentacarbon Decahydride | 4C5H10 |  |  |

**Balancing Chemical Equations**

Practice Problems

Instructions: Complete the following reactions, balance them properly and **identify** the type of reaction occurring.

1. \_\_\_N2 + \_\_\_ H2 → \_\_\_ NH3 Reaction Type:
2. \_\_\_ P2O5 → \_\_\_\_ P4 + \_\_\_\_ O2 Reaction Type:
3. \_\_\_\_ C6H12O6 + \_\_\_\_ O2 → \_\_\_\_ CO2 + \_\_\_\_ H2O Reaction Type
4. \_\_\_ Al + \_\_\_ Pb(NO3)2 → \_\_\_Al(NO3)3 + \_\_\_Pb Reaction Type:
5. \_\_\_Cu + \_\_\_ AgNO3 → \_\_\_ Cu(NO3)2 + \_\_\_ Ag Reaction Type:
6. \_\_\_ Ca(OH)2 + \_\_\_ HCl → \_\_\_ CaCl2 + \_\_\_ H2O Reaction Type:
7. \_\_\_ KOH + \_\_\_ H3PO4 → \_\_\_ K3PO4 + \_\_\_ H2O Reaction Type:
8. \_\_\_ Al(NO3)3 + \_\_\_ H2SO4 → \_\_\_ Al2(SO4)3 + \_\_\_HNO3 Reaction Type:
9. \_\_\_ Na2SO3 + \_\_\_ HCl → \_\_\_ NaCl + \_\_\_ H2O + \_\_\_ SO2 Reaction Type:
10. \_\_\_ (NH4)2SO4 + \_\_\_ KOH → \_\_\_ K2SO4 + \_\_\_ NH3 + \_\_\_ H2O Reaction Type:

**Chemical Reactions Book Review (pgs.118-131)**

1. Read pgs. 118-121 and highlight the definition of any new vocab (example: reactants, products)
2. Page 120 - highlight the evidences of a chemical change
3. Page 124 – examine the diagram of a chemical equation and highlight the definitions of “subscript” and “coefficient” in the paragraph above the diagram
4. Page 123, 130-131 highlight the description of the Law of Conservation of Mass and how it relates to chemical reactions
5. Bottom of pg 122 – use pages 356-367 in the **white textbook** and write down the 5 types of chemical reactions and an equation that describes them
6. Page 137-138 – What is the difference between exothermic reactions and endothermic reactions?